

CLAIMS

[1] A method for Agrobacterium-mediated gene transduction into a plant material, comprising:

- 1) preparing the plant material, and then
- 5     2) infecting the plant material with an Agrobacterium, characterized in that a medium enriched in a metal salt containing copper ion is used in step 1) and/or 2).

[2] The method of claim 1 wherein the metal salt is copper sulfate or copper gluconate.

- 10     [3] The method of claim 1 wherein the metal salt is copper sulfate.

[4] The method of any one of claims 1 to 3 wherein a medium enriched in a metal salt is used in at least step 2) of infecting the plant material with an Agrobacterium.

- 15     [5] The method of any one of claims 1 to 4 wherein a medium enriched in copper sulfate or copper gluconate is used in at least step 2) of infecting the plant material with an Agrobacterium.

- 20     [6] The method of any one of claims 1 to 5 wherein a medium containing 1-50  $\mu\text{M}$ , preferably 1-10  $\mu\text{M}$  copper sulfate or copper gluconate is used in at least step 2) of infecting the plant material with an Agrobacterium.

- [7] The method of any one of claims 1 to 6 further comprising subjecting the plant material to at least one  
25     treatment selected from the group consisting of pressurization, heat treatment, centrifugation and sonication in step 1) of preparing the plant material and/or step 2) of infecting the plant material with an

Agrobacterium.

[8] The method of any one of claims 1 to 7 wherein the plant is a monocotyledon.

[9] The method of any one of claims 1 to 7 wherein the  
5 plant is maize.

[10] The method of any one of claims 1 to 7 wherein the plant is rice.

[11] The method of any one of claims 1 to 10 wherein the plant material is an immature embryo.

10 [12] The method of any one of claims 1 to 11 further comprising the steps of:

3) selecting a transformed cell, and

4) optionally regenerating the selected transformant, subsequently to step 2) of infecting the plant material

15 with an Agrobacterium.

[13] The method of any one of claims 1 to 11 further comprising the steps of:

3) selecting a transformed cell, and

4) optionally regenerating the selected transformant,  
20 subsequently to step 2) of infecting the plant material with an Agrobacterium, wherein a medium enriched in a metal salt containing copper ion is used in at least one of the steps above.

[14] A process for preparing a transformed plant  
25 characterized in that the method of claims 12 or 13 is used.

[15] A process for preparing a transformed plant by Agrobacterium-mediated transformation of a plant material,

comprising:

- 1) preparing the plant material,
  - 2) infecting the plant material with an Agrobacterium,
  - 3) selecting a transformed cell, and
  - 5 4) regenerating the selected transformant,
- characterized in that a medium enriched in a metal salt containing copper ion is used in step 4).

[16] The process of claim 15 wherein the metal salt is copper sulfate or copper gluconate.

- 10 [17] The process of claim 15 or 16 wherein the concentration of the metal salt is 1-50  $\mu\text{M}$ , preferably 1-10  $\mu\text{M}$ .

[18] The process of any one of claims 15 to 17 wherein the plant is a monocotyledon.

- 15 [19] The process of any one of claims 15 to 17 wherein the plant is maize.

[20] The process of any one of claims 15 to 17 wherein the plant is rice.

- 20 [21] The process of any one of claims 15 to 20 wherein the plant material is an immature embryo.

[22] A method for promoting the growth of a regenerated plant characterized in that a medium enriched in a metal salt containing copper ion is used in the step of regenerating a plant from a dedifferentiated plant cell.